Calculus 2, Chapter 9 Study Guide
Prepared by Dr. Robert Gardner

The following is a brief list of topics covered in Chapter 9 of Thomas’ Calculus. Test questions will be chosen directly from the text. This list is not meant to be comprehensive, but only gives a list of several important topics. I reserve the right to ask you definitions and theorems on the tests. If I do so, then I will choose from the bold-faced items below.

9.1. Solutions, Slope Fields and Euler’s Method. first-order differential equation and solution, initial condition, slope field, Euler’s method, concerns over computational accuracy.


9.3. Applications. Force of resistance of a moving object is proportional to the velocity, logistic growth model, orthogonal trajectories, mixture problems.

9.4. Graphical Solutions of Autonomous Differential Equations. Autonomous ordinary differential equation, equilibrium values (or “rest points”), phase line, graphing solutions, stability of equilibrium values, logistic equation.